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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/834,413 | 04/13/2001 | Rudger Rubbert | 01-101 | 3617 |
| 38600 | 7590 | 09/06/2005 | EXAMINER | |
| ORAMETRIX, INC. 2350 CAMPBELL CREEK BOULEVARD, SUITE 400 RICHARDSON, TX 75082 | | | LEWIS, RALPH A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3732 | |

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/834,413

Applicant(s)

RUBBERT ET AL.

Examiner

Ralph A. Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 43-46 and 48-50 is/are allowed.
- 6) ☒ Claim(s) 1-19, 23-42 and 47 is/are rejected.
- 7) ☒ Claim(s) 20-22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Rejections based on 35 U.S.C. 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 36 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 36, line 1, there is no antecedent basis for "said library."

Rejections based on Prior Art

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-15, 23, 24, 30-32, 35-37 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Duret et al (US 4,663,720).

Duret et al disclose a system for creating dental prostheses that includes a memory storing a library of standard 3-d virtual tooth shapes (i.e. "template object") (column 5, lines 45-47). The Duret et al system further includes memory for storing a virtual 3-d model of a patient's dentition (column 6, lines 20-22) that has been scanned from the patient's mouth. The Duret et al system then uses software to process the 3-d

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shapes in order to derive a 3-d virtual model (column 8, lines 11-14) that is used in forming the dental prosthesis. In regard to claims 3 and 5, note Figures 6, 8-17. In regard to claim 4, and the "cloud of three dimensional points," it is noted that the Duret et al system is digital and that 3-d shapes in a digital system are nothing more than defined points – i.e. a "cloud of points". In regard to claim 15, note the display column 8, lines 9-11).

Claims 25-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Doyle et al (US 5,879,158).

Doyle et al disclose an orthodontic workstation with a computer that stores a virtual three-dimensional model of the patient's dentition (column 6, lines 18-21) and 3-d virtual templates of individual teeth 122 (column 7, lines 44-45). The virtual model of the patient's teeth is displayed and may be manipulated to position the teeth in different positions (column 6, lines 45-50). The digital model is provided with digital brackets and various configurations including a final desired model is saved into memory (column 9, lines 58—60, lines 66-68).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duret et al (US 4,663,720).

It is conventional in the software art to provide the user with the ability to mark a particular point on a digital image for further reference. To have provided the Duret et al system with such a conventional feature so that the digital image could be marked for further reference would have been obvious to one of ordinary skill in the art.

Prior Art

Applicant's information disclosure statements of February 15, 2002, June 06, 2002, March 24, 2003, July 24, 2003, November 20, 2003, January 30, 2004, and September 22, 2004 have been considered and an initialed copy enclosed herewith.

Moermann et al (US 4,575,805), Duret et al (US 4,611,288), (US 4,742,464) and (US 5,092,022), Brandestini et al (US 4,837,732), Rekow et al (US 5,273,429), Andreiko et al (US 5,431,562), Poirier (US 5,725,376), Chishti et al (US 6,210,162), Sachdeva et al (US 6,315,553), (6,688,885) and Hughes et al (US 6,688,886) are made of record.


Allowable Subject Matter

Claims 43-46 and 48-50 are allowed. Claims 20-22 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form to include all of the limitations of the claims from which they depend.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712**. Fax (571) 273-8300. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Kevin Shaver, can be reached at (571) 272-4720.

R.Lewis
August 26, 2005



Ralph A. Lewis
Primary Examiner
Au3732